

Having described my invention, I claim:

1. A system for digitally recording the motion of an instrument including:
  - a power source;
  - at least two hollow tubes made of electrically conductive material coupled to said power source through first connection, said at least two hollow tubes including a viscous material in the interior contacting said electrically conductive material, wherein when said at least one of said at least hollow tubes moves in an axial or rotational direction, said viscous material contacting said electrical conductive material;
  - a power sink coupled with said at least two electrically conductive hollow tubes through a second connection.
2. The system as recited in claim 1, further including a transistor coupled in between said at least two hollow tubes and said second connection.
3. The system as recited in claim 2, wherein said transistor does not provide an electrical signal to said power sink unless the power reaches a voltage indicative of at least a detection threshold.
4. The system as recited in claim 2, wherein said transistor does not provide an electrical signal to said power sink unless the power reaches a power indicative of at least a detection threshold.
5. The system as recited in claim 1, wherein said power source is pulsed.
6. The system as recited in claim 5, wherein said pulsed power source is pulsed at less than 1 millisecond.
7. The system as recited in claim 1, wherein there are four of said hollow tubes.

8. The system as recited in claim 1, wherein there is a hollow tube for each axial directions, and at least two rotational directions.
9. The system as recited in claim 8, wherein said at least two rotational directions include tilt from a vertical upright position ( $\theta$ ) and clock position ( $\alpha$ ).
10. The system as recited in claim 1, wherein said sink is coupled with electronic storage.
11. The system as recited in claim 10, wherein said electronic storage stores data
12. The system as recited in claim 1, wherein said hollow tubes are
13. The system as recited in claim 1, wherein said hollow tubes are substantially cylindrical.
14. A system for tracking the motion of a writing instrument including:
  - a clock controlling a power source;
  - a series of virtual resistors coupled with said power source, each virtual resistor including a detection tube with a electrically active varying material, wherein the resistance of said of each virtual resistor is dependent upon the configuration of said electrically active varying material, said material varying with motion of said writing instrument;
  - a power sink; and
  - a signal processor.
15. The system as recited in claim 14 further including a filter for at least one of said resistors.

16. The system as recited in claim 15, whereing there are at least 4 said virtual resistors corresponding to at least two axial directions and at least two rotational directions.